

Amendments to the Specification

Please replace the title with the following amended title:

Stacked Semiconductor Device, ~~Electronic Device, Electronic Equipment and~~
Manufacturing Method Thereof ~~having an Insulating Layer with Variable~~
Thickness

Please replace paragraph [0003] with the following amended paragraph:

In FIG. 6, a land 42 is used to connect a conductive wire 44d and a conductive wire 45d formed on the surface of a carrier substrate 41. A projection electrode 43 is also formed on the back surface of the carrier substrate 41. Moreover, an electronic pad 44b is formed on a semiconductor chip 44a to connect a conductive wire 44d, and an electronic pad 45b is also formed on a semiconductor chip 45a to connect a conductive wire 45d. The semiconductor chip 44a is mounted face-up above the carrier substrate via an adhesive layer 44c. Furthermore, the semiconductor chip 45a is mounted face-up above the semiconductor chip 44a via a mirror chip 46a, sandwiched between an adhesive layer 46b and an adhesive layer 46c. In this case, the ~~semiconductor chip 44a~~ mirror chip 46a is mounted between the semiconductor chip 44a and the semiconductor chip 45a, being kept away from the electronic pad 44b formed on the semiconductor chip 44a.

Please replace paragraph [0004] with the following amended paragraph:

The semiconductor chip 44a mounted above the carrier substrate 41 is electrically connected to the land 42 on the carrier substrate 41 by a conductive wire 44d. The semiconductor chip ~~44b~~ 45a mounted above the semiconductor chip 44a via the mirror chip 46a is also electrically connected to the land 42 on the carrier substrate 41 by the conductive wire 45d. Both the semiconductor chip 44a connected by the conductive wire 44d and the semiconductor chip 45a connected by the conductive wire ~~44d~~ 45d are molded by the molding resin 47.

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A semiconductor device, comprising:
 - a substrate having a terminal to connect a conductive wire;
 - a first semiconductor chip mounted face-up above the substrate and electrically connected to the terminal formed on the substrate by the conductive wire;
 - a second semiconductor chip mounted above the first semiconductor chip via an insulating spacer; and
 - ~~a solid particles material~~ contained in the insulating spacer of different sizes, wherein one or more of the particles are sized to keep a distance between the first semiconductor chip and the second semiconductor chip.
2. (Currently amended) A semiconductor device, comprising:
 - a substrate having a terminal to connect a conductive wire;
 - a first semiconductor chip mounted face-up above the substrate and electrically connected to the terminal formed on the substrate by the conductive wire;
 - a second semiconductor chip mounted above the first semiconductor chip via an insulating resin; and
 - ~~a solid particles material~~ contained in the insulating resin of different sizes, wherein one or more of the particles are sized to keep a distance between the first semiconductor chip and the second semiconductor chip.
3. (Currently amended) A semiconductor device, comprising:
 - a substrate having a terminal;
 - a first semiconductor chip mounted face-up above the substrate;
 - a first electrode pad formed on the first semiconductor chip;

a first conductive wire connecting the first electrode pad and the terminal formed on the substrate electrically;

a second semiconductor chip mounted above the first semiconductor chip;

a second electrode pad formed on the second semiconductor chip;

a second conductive wire connecting the second electrode pad and the terminal formed on the substrate;

an insulating resin formed between the first semiconductor chip and the second semiconductor chip in such a way as wrapping the first conductive wire above first semiconductor chip;

a solid particles material contained in the insulating resin of different sizes, wherein one or more of the particles are sized to keep a distance between the first semiconductor chip and the second semiconductor chip; and

molding resin to mold the first semiconductor chip to which the first conductive wire is connected and the second semiconductor chip to which the second conductive wire is connected.

4. (Currently amended) A semiconductor device, comprising:

a substrate having a terminal;

a first semiconductor chip mounted face-up above the substrate;

a first electrode pad formed on the first semiconductor chip;

a first conductive wire connecting the first electrode pad and the terminal formed on the substrate electrically;

a second semiconductor chip mounted above the first semiconductor chip;

a second electrode pad formed on the second semiconductor chip;

a second conductive wire connecting the second electrode pad and the terminal formed on the substrate electrically;

an insulating resin mounted between the first semiconductor chip and the second semiconductor chip and being at least under the second electrode pad; and

a solid particles material contained in the insulating resin of different sizes, wherein one or more of the particles are sized to keep a distance between the first semiconductor chip and the second semiconductor chip.

5. (Original) The semiconductor device according to claim 1, further comprising an insulating layer formed entirely on a back portion of the second semiconductor chip.

6. (Original) The semiconductor device according to claim 1, wherein a size of the solid material is set corresponding to the distance between the first semiconductor chip and the second semiconductor chip.

7-8. (Canceled)

9. (Currently amended) The semiconductor device according to claim 1, wherein an elasticity ability of the solid material is ~~better~~ greater than an elasticity ability of the semiconductor chip.

10. (Original) The semiconductor device according to claim 1, wherein the solid material is a globular particle.

11. (Currently amended) The semiconductor device according to claim 10, wherein a maximum of a ~~radius~~ diameter of the globular particle is practically equal to a thickness of the insulating spacer.

12. (Currently amended) The semiconductor device according to claim 10, wherein a ~~weight~~ height of the globular particle is within a range from 1% through 10% of that of the insulating spacer.

13. (Currently amended) A semiconductor device, comprising:
a substrate having a terminal to connect a conductive wire;
a first electronic part mounted face-up above the substrate and electrically connected to the terminal that is formed on the substrate by the conductive wire;
a second electronic part mounted above the first electronic part via an insulating spacer; and

a solid particles material contained in the insulating spacer of different sizes, wherein one or more of the particles are sized to keep a certain distance between the first electronic part and the second electronic part.

14-16 (Canceled)

17. (Original) The semiconductor device according to claim 2, further comprising an insulating layer formed entirely on a back portion of the second semiconductor chip.

18. (Original) The semiconductor device according to claim 3, further comprising an insulating layer formed entirely on a back portion of the second semiconductor chip.

19. (Original) The semiconductor device according to claim 4, further comprising an insulating layer formed entirely on a back portion of the second semiconductor chip.

20. (Original) The semiconductor device according to claim 2, wherein a size of the solid material is set corresponding to the distance between the first semiconductor chip and the second semiconductor chip.

21. (New) The semiconductor device according to claim 1, wherein the radius of the particles in the insulating spacer are set in the range from 30 to 150 μm .

22. (New) The semiconductor device according to claim 1, wherein one or more of the particles in the insulating spacer are sized to be practically equal to the thickness of the insulating spacer.

23. (New) The semiconductor device according to claim 1, wherein three of the particles in the insulating spacer are sized to be practically equal to the thickness of the insulating spacer.